## Vascular Plants of Williamson County Anemone berlandieri - TENPETAL ANEMONE [Ranunculaceae]

Anemone berlandieri Pritzel, tenpetal anemone. Perennial herb, from a vertical tuber, $\pm$ taprooted below tuber, rosetted (often not appearing so), 1-stemmed, with ascending to erect, axillary inflorescences, in flower to 16 cm tall increasing to 42 cm long in fruit; shoot with only basal leaves, basal leaves $1-12$, exposed leaves and axes $\pm$ villous to pilose aging somewhat hispid; tubers to $25 \times 12 \mathrm{~mm}$, solid. Stem: aboveground short and hidden by leaf bases at top of tuber. Leaves: helically alternate, 1(-2)- palmately compound, 3-foliolate or deeply 3-lobed but on well-watered and robust individuals occasionally twice 3-foliolate with subdivision of terminal leaflet (to 12 blade portions), to 120 mm long, petiolate, without stipules; petiole flattened and white at base and channeled above, to 75 mm long, green and purplish red, villous-hispid; blade rachis to 25 mm long, channeled, often purplish red; petiolule of primary leaflets to 30 mm long and channeled but small leaflets sometimes sessile; blade < petiole, $\pm$ ovate in outline, to $45 \times 40 \mathrm{~mm}$, of primary leaflets symmetric (terminal leaflet) and asymmetric (lateral leaflets), to 22 mm long, tapered at base, serrate-crenate or with shallow lobes on margins mostly above midpoint, of secondary leaflets lobes mostly oblanceolate with or without a tooth, with several veins radiating from base and principal veins somewhat raised on lower surface, sparsely pilose, lower surface often purple. Inflorescence: solitary axillary flowers appearing scapose, 1 -several per plant but not from the lowermost basal leaves, bracteate, villous; peduncle cylindric, at anthesis mostly $70-150 \mathrm{~mm}$ long (including belowground portion) increasing $2 \times$ in fruit, tough, white belowground and purple aboveground and villous; involucre of 3 bracts (bractlets) subtending pedicel slightly overlapping at base, each bract deeply palmately 3-lobed from at or below midpoint, appearing sheathing, at anthesis $13-20 \mathrm{~mm}$ long increasing to 30 mm long and often spreading in fruit, bract (3)5veined at base, narrowly wedge-shaped in outline, lower portion to 7 mm wide, lobes ascending and each often deeply 3 -lobed, lobes and sublobes $\pm$ linear, to 1 mm wide with entire margins; $\pm$ appressed-villous with hairs to 1 mm long and lobes with hairs on both surfaces; pedicel cylindric, at anthesis $7-30+\mathrm{mm}$ long increasing greatly in fruit to $120+$ mm, green, appressed-villous, pith aging hollow. Flower: bisexual, radial, (13-)23-30 mm across; receptacle elongate (torus) and at anthesis ellipsoid and short-hairy; lacking nectar; sepals in range 11-17, helically alternate in at least 2 series, spreading widely, narrowly oblong to linear-elliptic, $7-15+\times 2-3.8 \mathrm{~mm}$, outer series generally wider, white to pale, light, and dark violet to violet-blue within each population, upper surface with darker pigment, entire, $\pm$ truncate or inconspicuously notched at tip, mostly 5-veined from base, upper surface appressed short-hairy, lower surface glabrous or with some hairs at base; petals absent; stamens 25-70 in several series, helically alternate, free; filaments unequal, ( $0.4-$ )1.5-4.5 mm long, pale yellow, glabrous; anthers basifixed, dithecal, 0.7-0.9 mm long, light yellow, longitudinally dehiscent, the longer stamens dehiscing first; pollen white; pistils mostly 200+, helically alternate, free; ovaries superior, elliptic in outline compressed front-to-back, 1-1.4 mm long, green, densely short-hairy with appressed hairs, 1-chambered with 1 ovule; style curved outward, $0.4-0.6 \mathrm{~mm}$ long, white aging red in fruit; stigma white, minutely papillate. Fruits: achenes, many, helically arranged, formed in an aggregate cylindric head, cylinder 20-40 $\times 6-8 \mathrm{~mm}$, with $300+$ helically alternate,
hairy achenes sessile on slender torus, achenes becoming wind-dispersed when mature; fruit body vertically oriented, flat-round, ca. $2.5 \times 2 \mathrm{~mm}$, brown, with a tuft of $100+$ soft hairs radiating from base, the hairs $3-4 \mathrm{~mm}$ long, flat side with shorter, scattered hairs, and along top having an appressed beak (style) also with soft hairs.
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